

Hedychium spicatum Ham. ex Smith var. *acuminatum* (Roscoe) Wall. - A new record for Peninsular India

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Abstract

Hedychium spicatum var. *acuminatum* is reported for the first time from southern Peninsular India. Detailed description, illustration and relevant notes are provided.

INTRODUCTION

The genus *Hedychium* was first established by Koenig in 1783 with a single species *H. coronarium*. Now, it contains about 80 species (Sirirugsa & Larsen, 1994) distributed mostly in the Indo-Malayan region. This, commonly called as 'ginger lily' or 'butterfly lily', forms one of the most beautiful gingers of the family Zingiberaceae. Roxburgh (1820) described 4 species in his *Flora Indica*, whereas Baker (1890-92) reported the occurrence of 24 species in British India. Naik and Panigrahi (1961) revised the genus *Hedychium* of Eastern India and recognised 17 species. Recently, Jain and Ved Prakash (1995) reported about 40 species and 4 varieties including 17 endemics from India. The genus is poorly represented in South India. Fischer (1928) described only 3 species viz., *H. coronarium* Koenig, *H. flavescens* Carey ex Rosc. and *H. venustum* Wight from Peninsular India. Since Baker (1890-92), several new species have been described from North India (Rao & Verma, 1969; Sastry & Verma, 1968; Mehrotra & Srivastava, 1985; Dan *et al.*, 1998).

During the study of the Zingiberaceae of southern Peninsular India, the author came across an interesting specimen from the Western Ghats. After critical study it was sent to Dr. Kai Larsen, Denmark and Dr. Sirirugsa, Thailand for identification. Both of them confirmed that the specimen belongs to *Hedychium spicatum* var. *acuminatum* but differs from the type in the lower bracts supporting 3 flowers. This character cannot be used to differentiate it as a new variety because of its high variability. Both 2-3-flowered and single-flowered bracts are seen in an inflorescence. Sometimes the cincinnus is restricted only to lowermost one or two bracts. Smith (1990) also noticed similar condition in *H. borneense*. The variety, hitherto reported from N.E. India, though collected earlier from the Western Ghats of southern Peninsular India were identified differently.

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The species includes two varieties: *H. spicatum* var. *spicatum* and *H. spicatum* var. *acuminatum*. These can be recognised using the following key.

Key to the varieties

1. Spike dense flowered; bracts closely imbricating, labellum cuneate, white; stamen straight, red var. **spicatum**
1. Spike few flowered; bracts lax; labellum clawed, white to pale yellow, red blotch at mouth; stamen curved, red var. **acuminatum**

Hedychium spicatum Ham. ex Smith var. **acuminatum** (Roscoe) Wall. in Hook., Kew J. Bot. 5: 328. 1853; Baker in Hook. f., Fl. Brit. India 6: 227. 1892; K. Schum. in Engler, Pflanzenr. 4(46): 50. 1904; Naik & Panigrahi, Bull. Bot. Surv. India 3: 72. 1961; Rao & Verma, Bull. Bot. Surv. India 14: 130. 1972. (Fig. 1).

Hedychium acuminatum Roscoe, Monandr. Pl. t. 47. 1828.

H. spicatum var. *khasianum* Clarke ex Baker in Hook. f., Fl. Brit. India 6: 227. 1892.

H. venustum sensu Naik & Panigrahi, Bull. Bot. Surv. India 14: 130. 1972, *non* Wight 1853.

Rhizomatous perennials; rhizome thick, fleshy, light yellow inside. Leafy shoot less than 1 m high. Leaves distichous, subsessile, oblong-lanceolate, tip acuminate, 20-25 x 4-6 cm, lower surface densely pubescent; upper surface glabrous, lower leaves much smaller, 3-5 x 2 cm; ligule small, 0.8-1.5 x 1 cm, membranous, outer surface densely pubescent, inner surface glabrous. Vegetative bracts covering the pseudostem 2-3, sparsely pubescent. Inflorescence central, straight; peduncle concealed within the leaf sheaths, glabrous. Bracts coriaceous, 10-13, loosely arranged, ovate-oblong, 2.5 x 1.5 cm, lower bracts subtend 2-3-flowered cincinni, upper bracts with a single flower. Bracteoles smaller than the bracts, outer larger, 1.3-2 x 0.7-1.5 cm, gradually becoming smaller towards inner side. Flowers longer than the bracts. Calyx tubular, longer than the bracts, 3.5 cm long, split about 1/3 distance from the top on one side. Corolla tube 6 cm long, slender, glabrous, lobes equal, linear, c. 3.5 x 0.5 cm, tip pointed. Labellum 3.5 - 4 x 2 cm, deeply bilobed, lobes yellow with a red blotch at the mouth, glabrous. Lateral staminodes linear, c. 4 x 0.3 cm, tip shortly bifid. Stamen shorter than the labellum, curved, filament 2 cm long, red; anther cells contiguous, thecae c. 1.2 cm long, red. Epigynous glands two, 3 x 2 mm long. Style long, filiform, stigma at the middle of the anther thecae, cup-shaped, fringed with hairs. Fruit globose to subglobose, 1-1.5 x 0.7-1 cm. Seeds many, 4 x 2 mm, black, arillate; aril white, lacerate.

Ecology: Montane forests, banks of streams, on thin soil over rocks and rock crevices.

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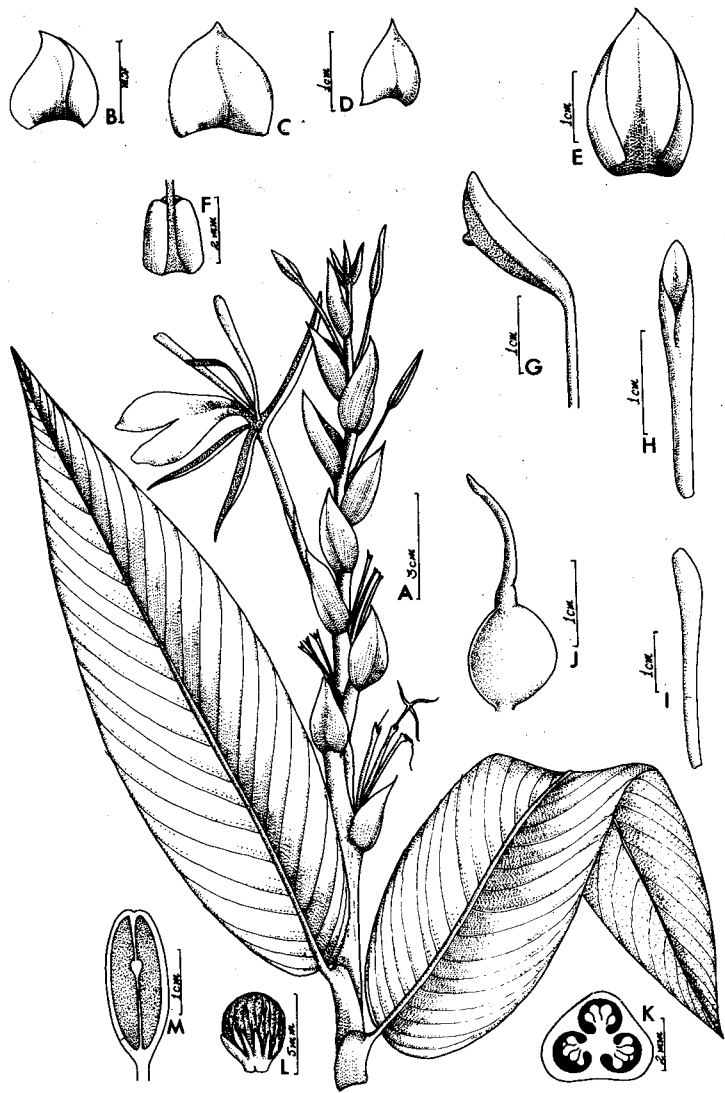


Fig. 1. *Hedychium spicatum* var. *acuminatum*: A. Habit; B. Middle bracteole; C. Outer bracteole; D. Inner bracteole; E. Bract; F. Epigynous glands; G. Anther-lateral view; H. Calyx; I. Lateral staminode; J.Fruit; K. Ovary T.S.; L. Seed with aril; M. Anther - front view.

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Fl. & Fr.: July-November.

Taxonomic notes: This plant is related to *H. griffithianum* Wall. and *H. venustum* Wight, but differs from the former in having the stamen shorter than the labellum; and from the latter in having the yellow labellum with a red blotch at the mouth and red stamens.

Specimens examined: KERALA: Thiruvananthapuram Dist., Ponmudi: *Mangaly 10291* (CALI); *Ibid.*, 1.9.1984, *Sabu 37378* (CALI); *Ibid.*, 16.8.1980, *Mohanan 69230* (MH); TAMIL NADU: Nilgiri Dist.: Balmodies Estate, Oucher colony Valley, 1400 m, 28.7.1970, *Ellis 34844* (MH).

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